State Testing Report

Shrewsbury Public Schools

November 18, 2015

BACKGROUND

State-wide Assessment Choices 2015

Assessment Choices for Spring 2015

Spring 2015	Number of public districts	MCAS			PARCC		
		# of districts	% of districts	# of students	# of districts	% of district	ents
Grades 3-8	359	165	46%	202,000	194	54%	229,500
PARCC for Grade 9 and/or 11 (optional)	295	N/A	N/A	N/A	69	23%	22,500

2015 Participation Rates

Spring 2015	Enrolled	Tested	Part. Rate
MCAS Grades 3-8	202,000	200,000	99%
PARCC Grades 3-8	229,500	223,500	98%
MCAS Grade 10	71,500	70,000	98%

Shrewsbury Spring 2015 Testing

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9/10
English Language Arts/Reading - PARCC							
English Language Arts/Reading - MCAS							
Mathematics - PARCC							
Mathematics - MCAS							
Science and Technology - MCAS							

Comparing Performance Levels

PARCC Levels

- Level 5
- Level 4
- Level 3
- Level 2
- Level 1

MCAS Levels

- Advanced
- Proficient
- Needs Improvement
- Warning

PARCC vs. MCAS Proficiency Comparison

2015 PARCC and MCAS Results—Statewide

Percent of Students Scoring *Proficient* or Higher on MCAS or *Meeting Expectations* on PARCC

	English Language Arts			Mathematics		
	PARCC*	MCAS*	Difference	PARCC*	MCAS*	Difference
Grade 3	54%	60%	-6	55%	70%	-15
Grade 4	57%	53%	+4	47%	47%	0
Grade 5	63%	71%	-8	55%	67%	-12
Grade 6	60%	71%	-11	53%	62%	-9
Grade 7	60%	70%	-10	45%	51%	-6
Grade 8	64%	80%	-16	53%	60%	-7
Grade 8 Algebra I	NA	NA	NA	80%	NA	NA
All Grades	60%	68%	-8	52%	60%	-8

* Statistically representative samples were used to report state trends in grades 3-8

Key Ideas

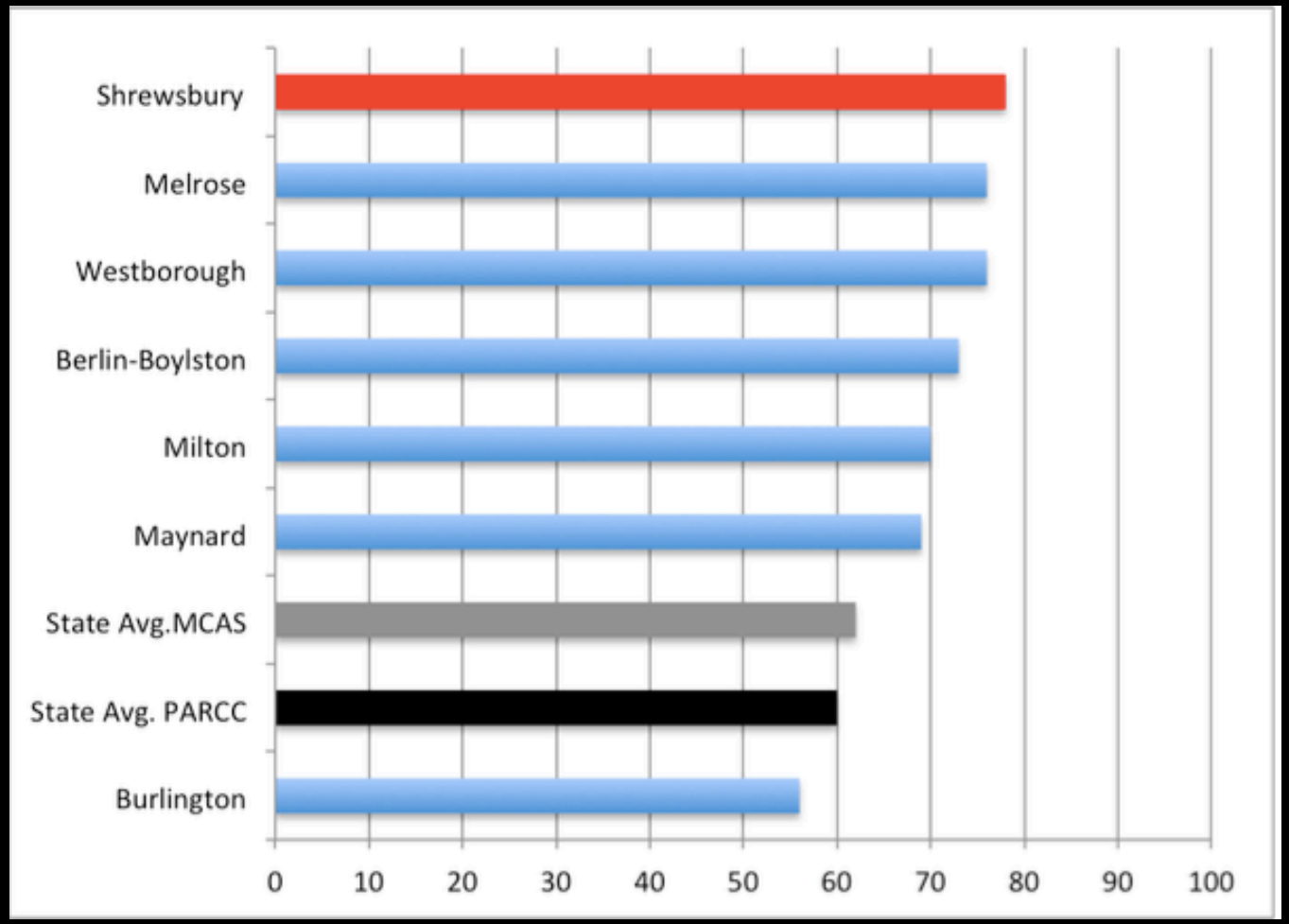
- Assessments are primarily used to inform instruction
- State assessments are one point of reference
- In all assessments, Shrewsbury students continue to score well above state average

Key Ideas

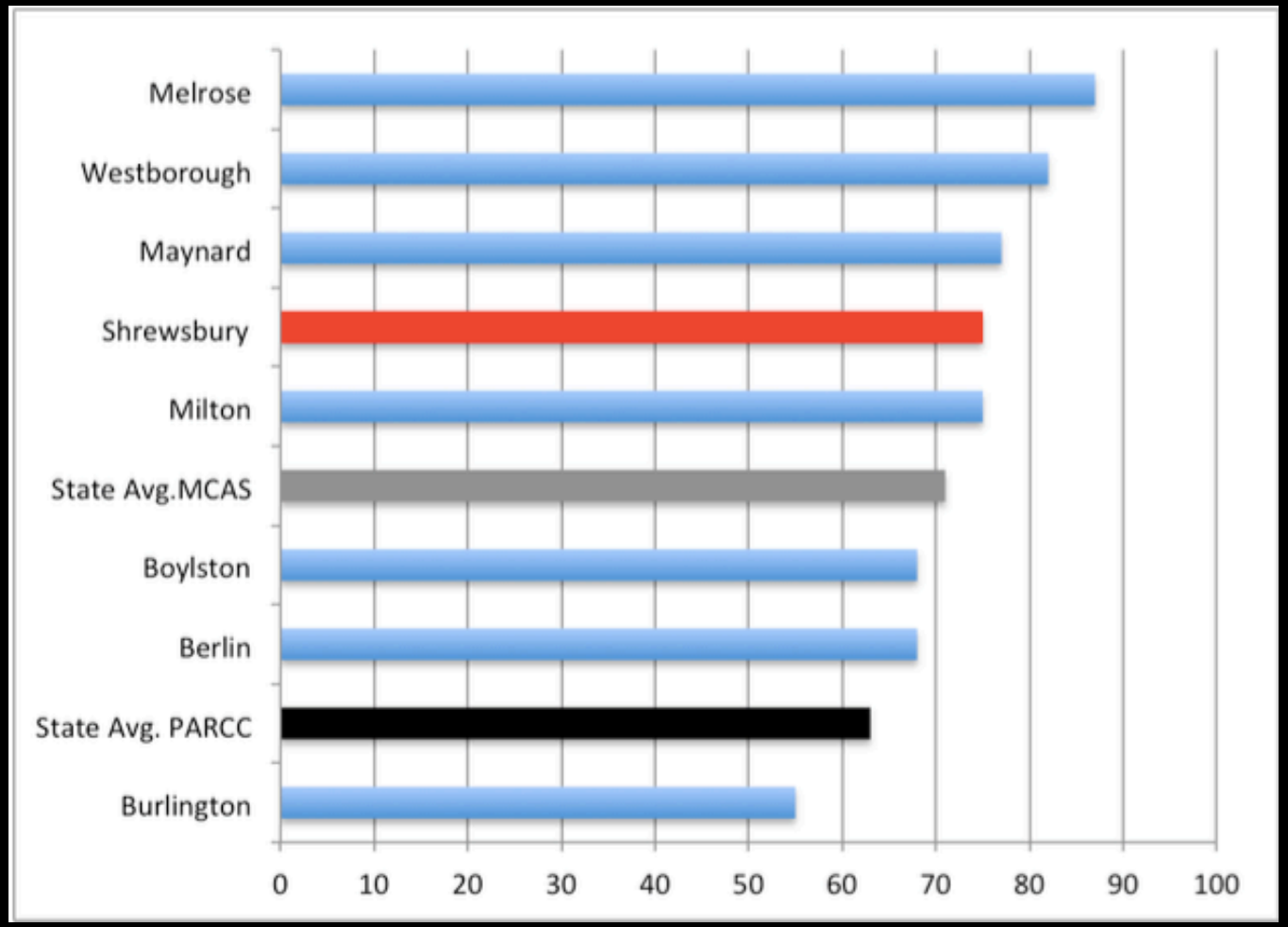
- PARCC assessment is new and scoring is in transition – all data should be considered *tentatively*
- Shrewsbury is in a stronger position to adapt to upcoming testing changes having chosen the PARCC path

PARCC RESULTS

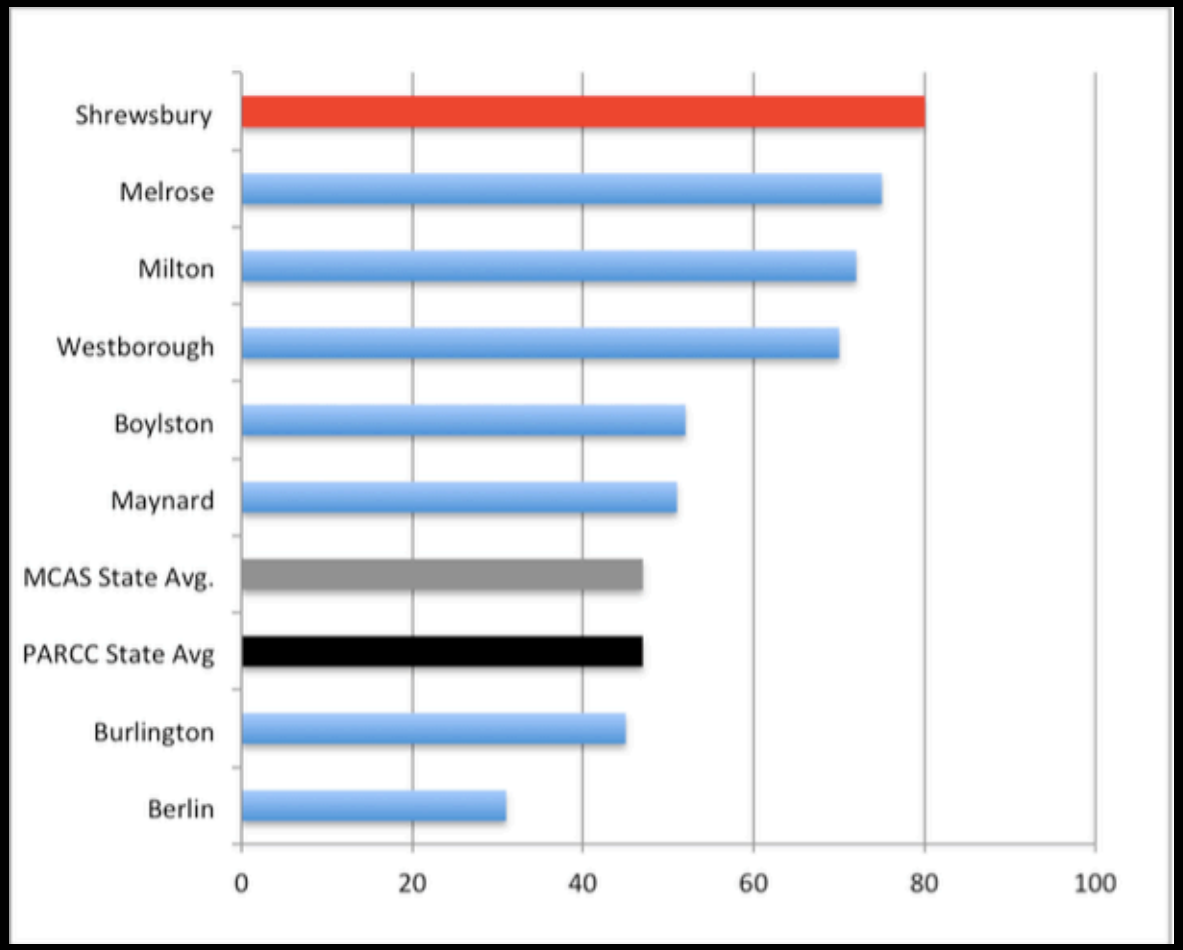
ELA – Grade 6


Shrewsbury
Melrose
Westborough
Berlin-Boylston
Milton
Maynard
State Avg.MCAS
State Avg. PARCC
Burlington
0
10
20
30
40
50
60
70
80
90
100

Grade 5 ELA


Melrose
Westborough
Maynard
Shrewsbury
Milton
State Avg.MCAS
Boylston
Berlin
State Avg. PARCC
Burlington
0
10
20
30
40
50
60
70
80
90
100

Math – Grade 4


Shrewsbury
Melrose
Milton
Westborough
Boylston
Maynard
MCAS State Avg.
PARCC State Avg
Burlington
Berlin
0
20
40
60
80
100

Part A

A student uses square tiles measuring 1 inch on each side to find the area of the rectangle. Her reasoning is shown.

I covered the top and bottom edges of the rectangle with 7 tiles each.

I then covered the left and right edges with 3 tiles each. I added up all the tiles I used to get a total area of 20 square inches. $7 + 7 + 3 + 3 = 20$

Identify the two errors in the student's reasoning and describe how to correctly use square tiles to find the area of the rectangle. Give the correct area of the rectangle

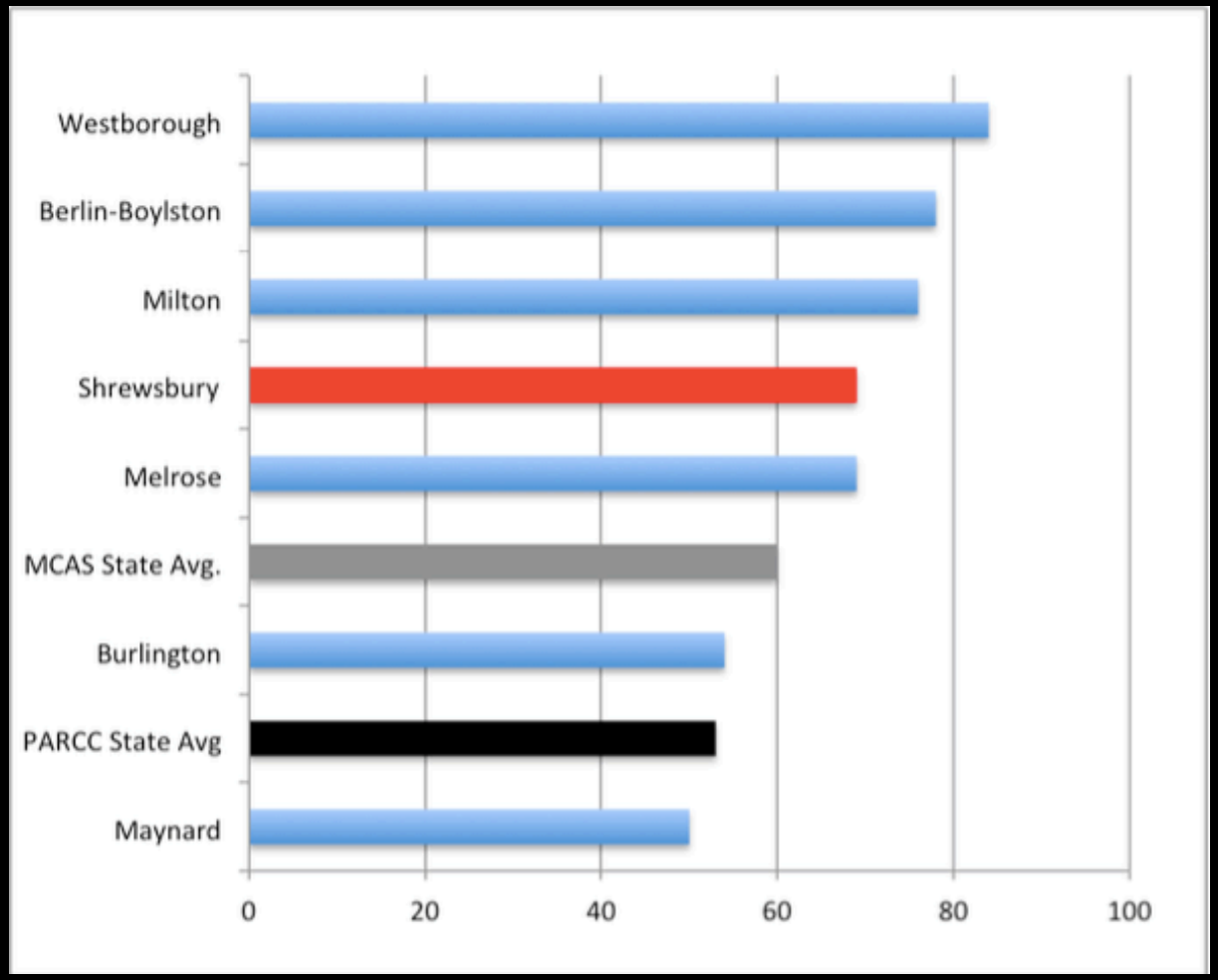
Student response includes the following 3 elements.

- **Reasoning component** = 3 points
  - Identifies error of overlapping tiles on corners
  - Identifies error of not completely covering the rectangle with tiles
  - Explains a way to correctly cover the rectangle and determines the area of the rectangle is 21 square inches

Part A

One of the errors the student has was she/he counted 4 of the squares twice she also didnt add the tiles in the middle. the correct answer should be 21 square inches

Math Grade 8


Westborough
Berlin-Boylston
Milton
Shrewsbury
Melrose
MCAS State Avg.
Burlington
PARCC State Avg
Maynard
0
20
40
60
80
100

Today you will research the topic of sound and the invention of the phonograph. You will read the article "The Incredible Talking Machine." Then you will read a passage from the article "History of the Cylinder Phonograph" and the article "Psst . . . Hey, You." As you review these sources, you will gather information and answer questions about sound and the invention of the phonograph so you can write an essay.

1 The phonograph was developed as a result of Thomas Edison's work on two other inventions, the telegraph and the telephone. In 1877, Edison was working on a machine that would transcribe telegraphic messages through indentations on paper tape, which could later be sent over the telegraph repeatedly. This development led Edison to speculate that a telephone message could also be recorded in a similar fashion. He experimented with a diaphragm which had an embossing point and was held against rapidly-moving paraffin paper. The speaking vibrations made indentations in the paper. Edison later changed the paper to a metal cylinder with tin foil wrapped around it. The machine had two diaphragm-and-needle units, one for recording, and one for playback. When one would speak into a mouthpiece, the sound vibrations would be indented onto the cylinder by the recording needle in a vertical (or hill and dale) groove pattern. Edison gave a sketch of the machine to his mechanic, John Kruesi, to build, which Kruesi supposedly did within 30 hours. Edison immediately tested the machine by speaking the nursery rhyme into the mouthpiece, "Mary had a little lamb." To his amazement, the machine played his words back to him.

The modern world continues to evolve and grow based on the needs of humans. By defination, technology is anything designed to extend the abilities of a being. By inventing sound technologies, humans have been able to record sounds for both their pleasure and to help them to accomplish tasks in their everyday lives. According to the passages, "The Incredible Talking Machine" and "The History of the Edison Cylinder Phonograph," the inventing of sound technologies was started by Thomas Edison, who set in motion a phenomenon that still continues today. By refining and marketing his phonograph, he was able to inspire others to discover and utilize more sound technologies such as types of 'sound beams,' as described in "Psst... Hey, You," and able to shape the modern world in the image and likelyhood it is currently.

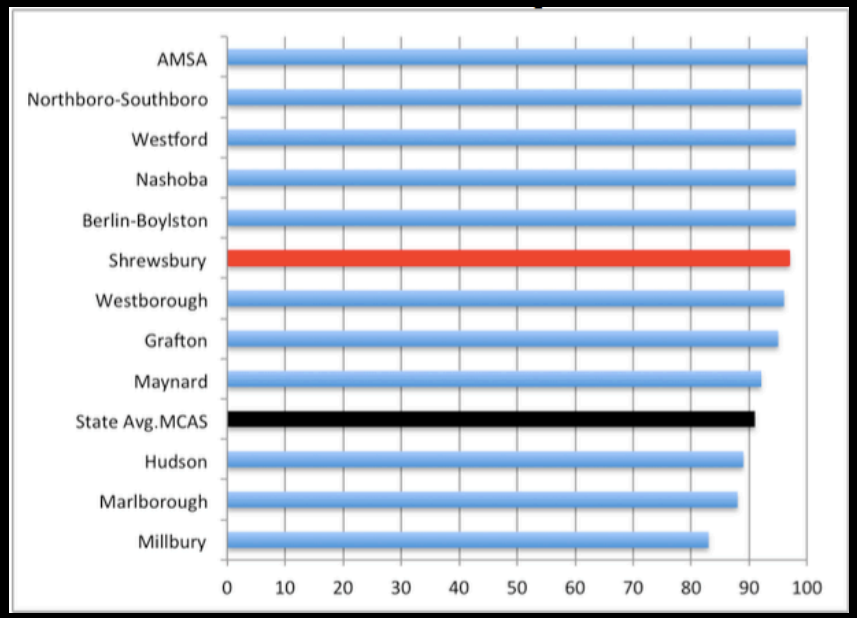
Anchor Paper 1
Reading
Score Point 4

The response provides an accurate analysis of the similarities between the two technologies, and the analysis is supported with effective and convincing textual evidence (*Both the phonograph and the sound beam technologies were used for the aiding of hearing. When the phonograph was first marketed, others had ideas of their own to make the technology better, and they were able to refine it into a better device overall. When the sound beam was first introduced, the technology was only able to send barely audible signals. However, others added their own thought on the technology, such as Pompeii who added algorithms and an amplifier, they potentially made the idea into a reality and was able to make the technology practical*). This response demonstrates full comprehension of ideas.

MCAS RESULTS

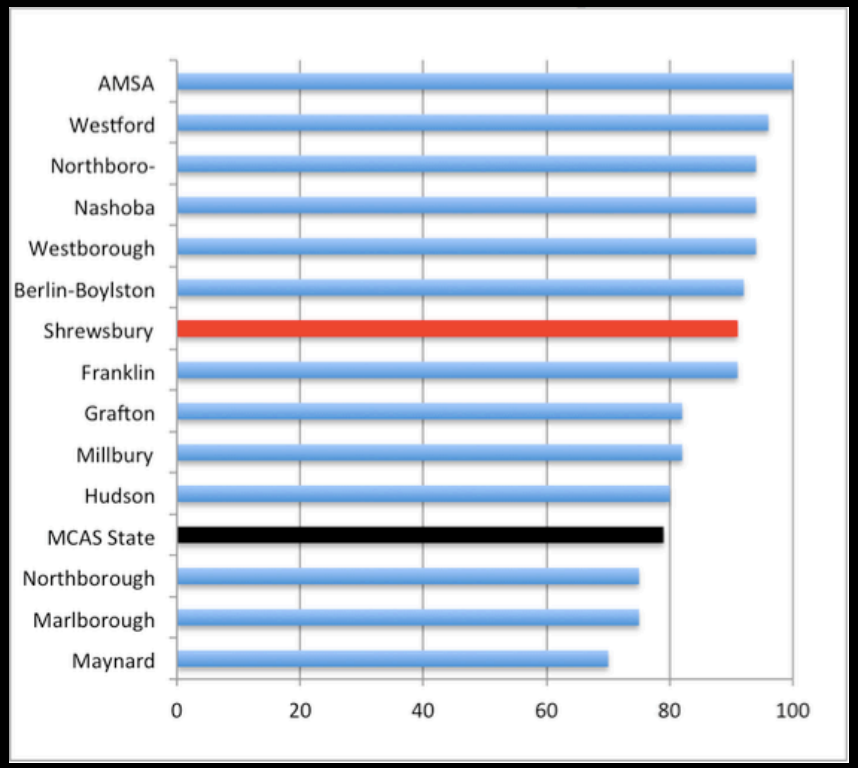
Grade 10

ELA



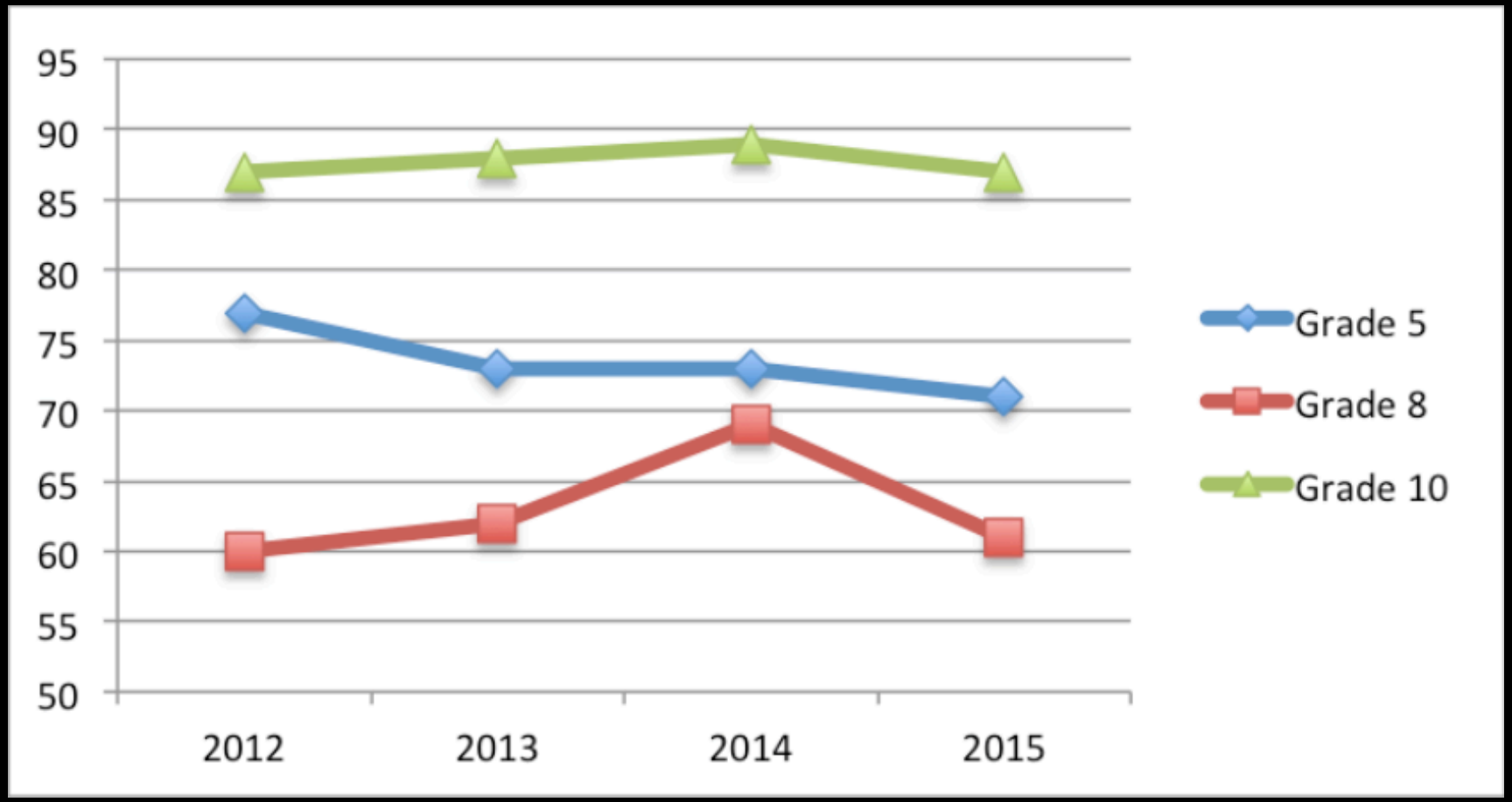
No change from 2014

Math



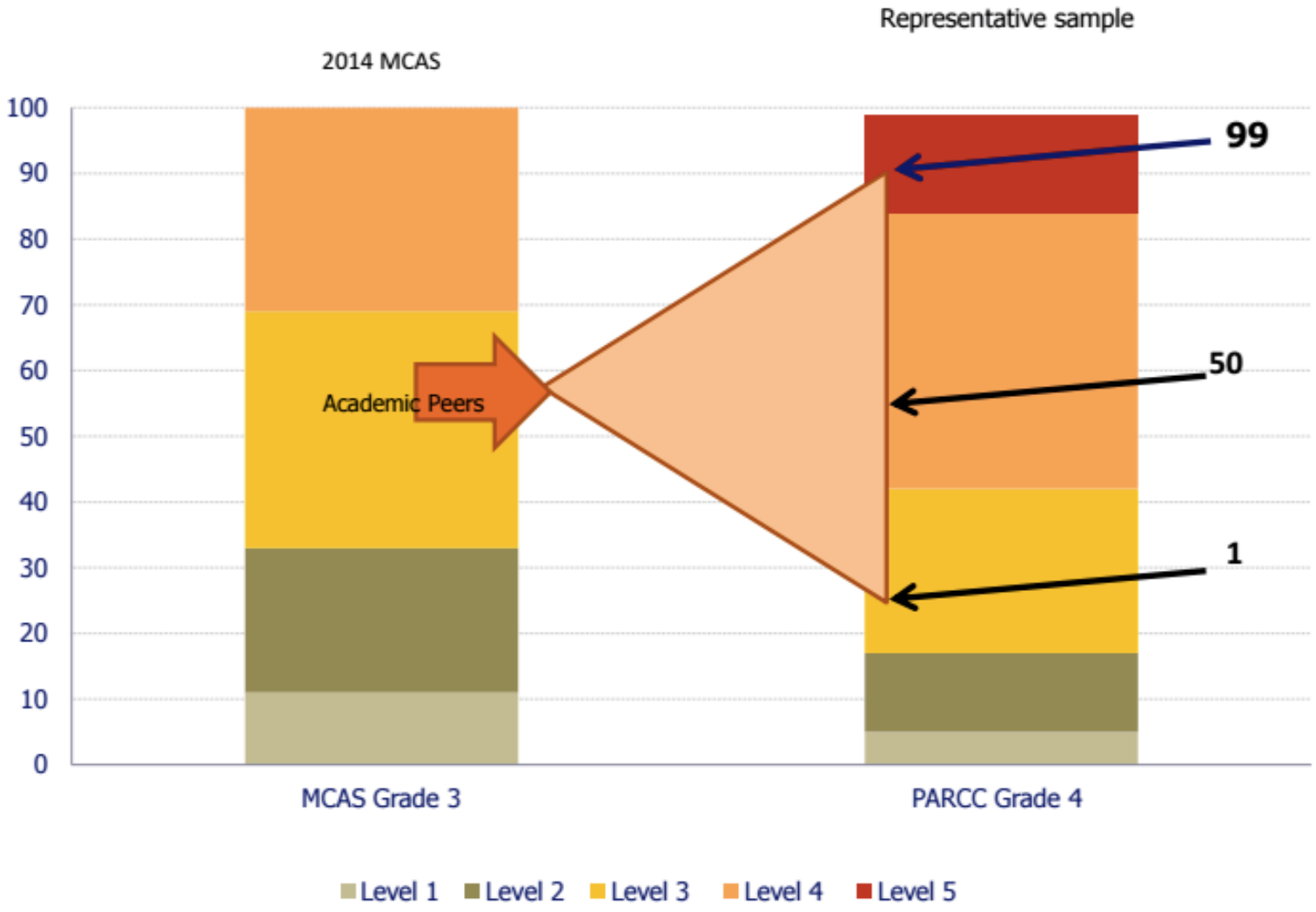
4% drop from 2014

Science

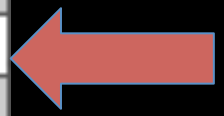

95
90
85
80
75
70
65
60
55
50
2012
2013
2014
2015
Grade 5
Grade 8
Grade 10

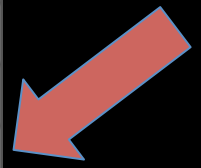
GROWTH SCORES

2015 PARCC Transitional Student Growth Percentiles



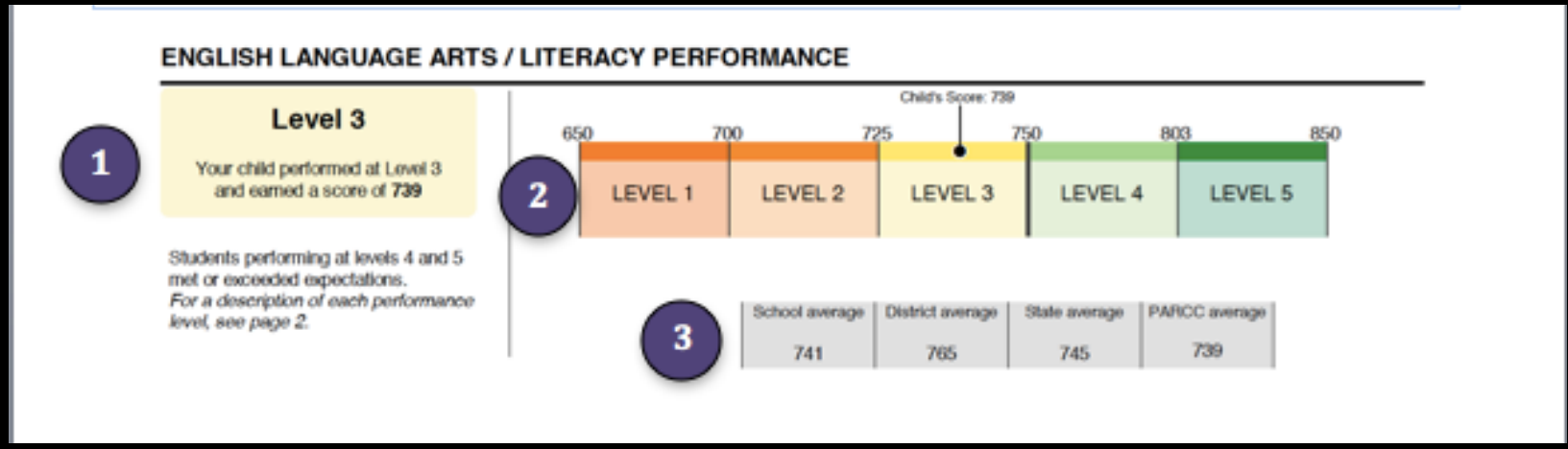
Grade and Subject	Trans. Student Growth Percentile (SGP)	
	#	Median
GRADE 3 ELA/L	--	--
GRADE 3 Math	--	--
GRADE 4 ELA/L	420	69.0
GRADE 4 Math	422	65.0
GRADE 5 ELA/L	454	37.0
GRADE 5 Math	453	44.0
GRADE 6 ELA/L	438	46.0
GRADE 6 Math	438	38.0
GRADE 7 ELA/L	492	37.0
GRADE 7 Math	492	30.0
GRADE 8 ELA/L	452	50.0
GRADE 8 Math	451	39.0
GRADES 3-8 ELA/L	2,256	47.0
GRADES 3-8 MATH	2,256	43.0



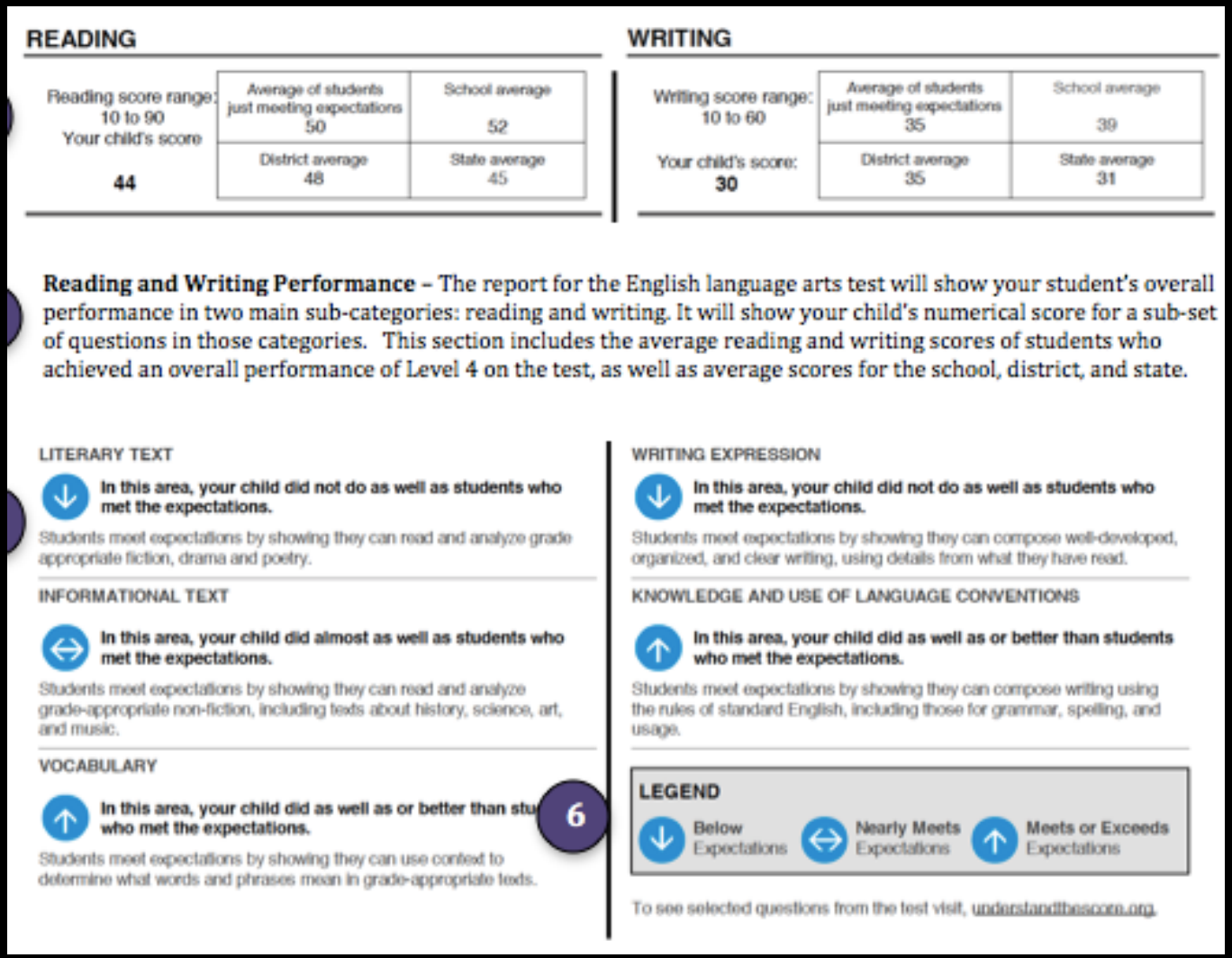


PARENT REPORT

ELA Report


ENGLISH LANGUAGE ARTS / LITERACY PERFORMANCE
1
Level 3
Your child performed at Level 3 and earned a score of 739
Students performing at levels 4 and 5 met or exceeded expectations.
For a description of each performance level, see page 2.
2
Child's Score: 739
650
700
725
750
803
850
LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4
LEVEL 5
3
School average
741
District average
765
State average
745
PARCC average
739

ELA Report, cont.



READING

Reading score range: 10 to 90	Average of students just meeting expectations	School average
	50	52
Your child's score	District average	State average
44	48	45

WRITING

Writing score range: 10 to 60	Average of students just meeting expectations	School average
	35	39
Your child's score:	District average	State average
30	35	31

Reading and Writing Performance – The report for the English language arts test will show your student's overall performance in two main sub-categories: reading and writing. It will show your child's numerical score for a sub-set of questions in those categories. This section includes the average reading and writing scores of students who achieved an overall performance of Level 4 on the test, as well as average scores for the school, district, and state.

LITERARY TEXT

In this area, your child did not do as well as students who met the expectations.

Students meet expectations by showing they can read and analyze grade appropriate fiction, drama and poetry.

INFORMATIONAL TEXT

In this area, your child did almost as well as students who met the expectations.

Students meet expectations by showing they can read and analyze grade-appropriate non-fiction, including texts about history, science, art, and music.

VOCABULARY

In this area, your child did as well as or better than stu... who met the expectations.

Students meet expectations by showing they can use context to determine what words and phrases mean in grade-appropriate texts.

WRITING EXPRESSION

In this area, your child did not do as well as students who met the expectations.

Students meet expectations by showing they can compose well-developed, organized, and clear writing, using details from what they have read.

KNOWLEDGE AND USE OF LANGUAGE CONVENTIONS

In this area, your child did as well as or better than students who met the expectations.

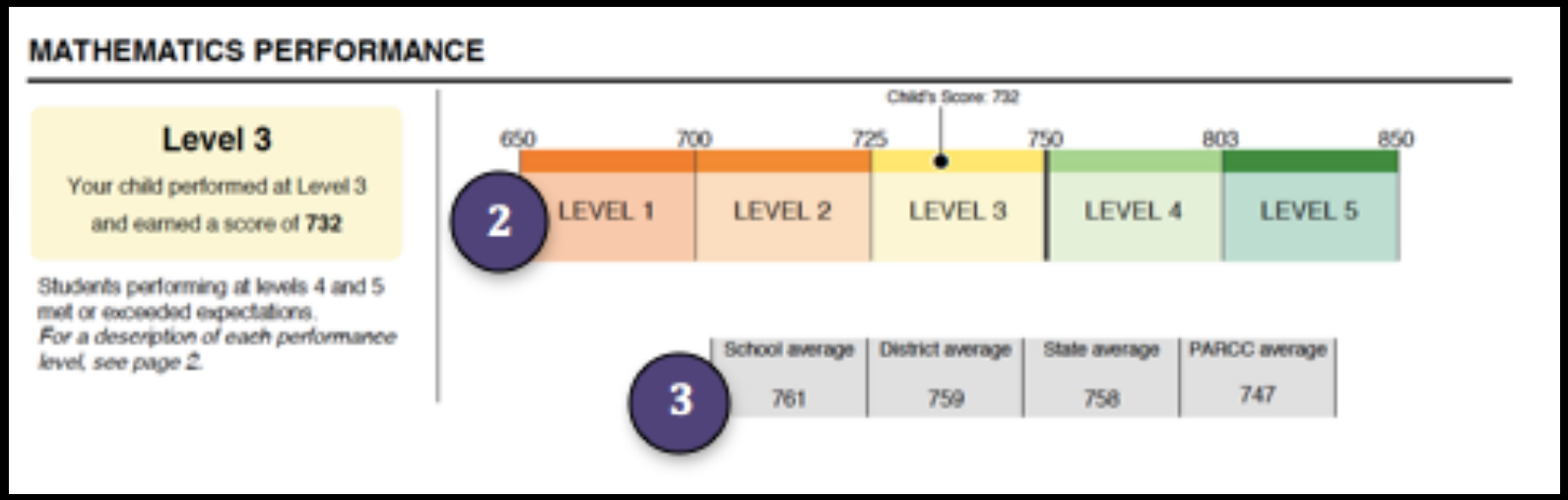
Students meet expectations by showing they can compose writing using the rules of standard English, including those for grammar, spelling, and usage.

LEGEND

Below Expectations | Nearly Meets Expectations | Meets or Exceeds Expectations

To see selected questions from the test visit, understandthescore.org

Math Report


MATHEMATICS PERFORMANCE
Level 3
Your child performed at Level 3 and earned a score of 732
Students performing at levels 4 and 5 met or exceeded expectations.
For a description of each performance level, see page 2.
Child's Score: 732
650
700
725
750
803
850
2
LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4
LEVEL 5
3
School average
761
District average
759
State average
758
PARCC average
747

Math Report, cont.

ADDITIONAL INFORMATION ABOUT YOUR CHILD'S MATHEMATICS SCORE

MAJOR CONTENT

In this area, your child did not do as well as students who met the expectations.

Students meet expectations by solving problems involving geometric proofs, transformations on shapes, right triangles, trigonometry, coordinate geometry, and applications of geometric concepts.

EXPRESSING MATHEMATICAL REASONING

In this area, your child did as well as or better than students who met the expectations.

Students meet expectations by creating and justifying logical mathematical solutions and analyzing and correcting the reasoning of others.

ADDITIONAL & SUPPORTING CONTENT

In this area, your child did almost as well as students who met the expectations.

Students meet expectations by solving problems involving transforming shapes on a coordinate plane, geometric constructions, circles, and volume.

MODELING & APPLICATION

In this area, your child did not do as well as students who met the expectations.

Students meet expectations by solving real-world problems, representing and solving problems with symbols, reasoning quantitatively and strategically using appropriate tools.

For a list of the major and additional content at each grade level, see parcconline.org/math.

LEGEND

Below Expectations | **Nearly Meets** Expectations | **Meets or Exceeds** Expectations

To see selected questions from the test, visit understandthescore.org.

WHAT'S NEXT?

Spring 2016 Testing

- Same as 2015
  - PARCC 3-8 ELA and Math
  - MCAS Grade 10 ELA and Math
  - MCAS Science
- Again "held harmless" for any negative accountability ratings
- PARCC moves from 2 testing windows to 1 (end of April – May time frame)

Spring 2017

- Grade 10 continues with Math and ELA MCAS
- MCAS 2.0 Science/Tech/Engineering
  - Grades 5, 8, and 9 *
- MCAS 2.0 English Language Arts and Math
  - Grades 5-8 *
  - Grades 3-4
- District continues to be “held harmless” from any negative state accountability ratings

*Expected to be on-line

Spring 2018

- Grade 10 *likely* shifts to MCAS 2.0 in ELA and Math *
- All other testing remains same as 2017
- Accountability ratings are back in effect

*Expected to be on-line

Spring 2019

- Required to transition Grades 3-4 to on-line testing

Phew! That was a lot of information!

Questions?